

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Claim 19 has been amended.

Claims 48-58 have been canceled without prejudice.

Listing of Claims:

1. (Previously withdrawn) An article of manufacture, comprising:
a fiber material in an amount of about 40% to about 70% by weight and a thermal plastic material in an amount of about 30% to about 60% by weight.
2. (Previously withdrawn) An article of manufacture according to claim 1 wherein the fiber material is selected from the group consisting of agricultural by-products, industrial by-products, fiberglass and wood.
3. (Previously withdrawn) An article of manufacture according to claim 2 wherein the fiber material is an agricultural by-product selected from the group consisting of corn stalks, wheat straw, bamboo reeds, and sisal.
4. (Previously withdrawn) An article of manufacture according to claim 1 wherein the fiber material is wood.
5. (Previously withdrawn) An article of manufacture according to claim 2 wherein the fiber material is fiberglass.
6. (Previously withdrawn) An article of manufacture according to claim 4 wherein the wood is of a size which fits through a 20 to 50 mesh screen and weighs about 13 to about 15 pounds per cubic foot.

7. (Previously withdrawn) An article of manufacture according to claim 6 wherein the wood fits through a 40 mesh screen.
8. (Previously withdrawn) An article of manufacture according to claim 1 wherein the fiber material is in an amount about 60% by weight, and the thermal plastic is in an amount about 40% by weight.
9. (Previously withdrawn) An article of manufacture according to claim 1 wherein the thermal plastic material is polyethylene or polypropylene.
10. (Previously withdrawn) An article of manufacture according to claim 9 wherein the thermal plastic material is polypropylene.
11. (Previously withdrawn) An article of manufacture according to claim 10 wherein the thermal plastic has a MFI (Melt Flow Index) of about 8 to about 15.
12. (Previously withdrawn) An article of manufacture according to claim 1 further comprising at least one enhancer selected from the group consisting of stearic acid, benzyl peroxide, dichloro-s-triazine, isocyanates, and maleic anhydride in an amount of about 3% by weight.
13. (Previously withdrawn) An article of manufacture according to claim 12 wherein the enhancer is maleic anhydride.
14. (Previously withdrawn) An article of manufacture according to claim 1 further comprising at least one additive selected from the group consisting of dyes, ultraviolet protecting additives, flame retardants, fungus retardants, heat resistant antioxidants, and insect retarding additives.
15. (Previously withdrawn) An article of manufacture according to claim 1 further comprising at least one of the following additives:

about .02% to about 2% of dye coloring;
about .02% to about 1% of fire retardation additive;
about .12% to about 1% ultraviolet protection additive;
about .12% to about 1% of insect resistance additives; and
about .5% heat resistant antioxidants.

16. (Previously withdrawn) An article of manufacture according to claim 1 further comprising a film or veil on a surface of the article of manufacture providing additional durability or UV resistance to the surface of the article of manufacture.

17. (Previously withdrawn) An article of manufacture according to claim 16 wherein the film or veil is made from a material selected from the group consisting of polypropylene, polyethylene, and polyester.

18. (Previously withdrawn) An article of manufacture according to claim 1 wherein the article of manufacture is a building board or building panel.

19. (Currently amended) A process for forming a composite article of manufacture comprising:

(a) adding wood fibers screened through a 20-40 mesh to an extruder mixing container;

(b) adding fiberglass chop about 1/4 inch to about 1 inch in length to the mixing container

([b]c) heating the fibers [in] of steps (a) and (b) in the mixing container to remove moisture;

([c]d) contacting [the] a hot thermal plastic additive mixture with the fibers of step (b) to produce a fiber/thermal plastic composite; and

[[d]e) contacting the fiber/thermal plastic mixture of step ([c]d) with a die to provide shape to the fiber/thermal plastic composite and to produce the composite article of manufacture, wherein the fiber/thermal plastic composite comprises about 35% fiberglass, about 25% wood, and about 40% plastic.

20. (Original) A process for forming a composite article of manufacture according to claim 19 wherein the fibers are added to the mixing container by a gravimetric feeder so as to provide a consistent feed of fiber to the mixing container.

21. (Original) A process for forming a composite article of manufacture according to claim 19 wherein the mixing container is a twin screw extruder.

22. (Previously canceled) A process for forming a composite article of manufacture according to claim 19 wherein the fibers are heated to remove moisture.

23. (Original) A process for forming a composite article of manufacture according to claim 19 further comprising subjecting the fibers to a vacuum to remove additional water from the fibers.

24. (Original) A process for forming a composite article of manufacture according to claim 19 wherein the fibers are heated to a constant temperature of about 400 degrees F to about 450 degrees F.

25. (Original) A process for forming a composite article of manufacture according to claim 24 wherein the fibers are heated to about 425 degrees F.

26. (Original) A process for forming a composite article of manufacture according to claim 19 further comprising adding at least one additive selected from the group consisting of dyes, ultraviolet light protecting additives, flame retardants, fungus retardants additives, heat resistant antioxidants, and insect retarding additives to the hot thermal plastic

step (b) to produce a hot thermal plastic additive mixture that is contacted with the fibers of step (c).

27. (Original) A process for forming a composite article of manufacture according to claim 19 wherein the hot thermal plastic is contacted with the fibers by injecting the hot thermal plastic into the mixing container containing the fibers.

28. (Original) A process for forming a composite article of manufacture according to claim 19 further comprising cooling the composite article of manufacture once the composite article of manufacture is shaped.

29. (Original) A process for forming a composite article of manufacture according to claim 28 wherein the composite article of manufacture is first cooled to about 200 degrees F and then subsequently cooled to room temperature.

30. (Original) A process for forming a composite article of manufacture according to claim 29 wherein the composite article of manufacture is cooled using a water spray system that sprays water on each surface of the composite article of manufacture.

31. (Original) A process for forming a composite article of manufacture according to claim 28 further comprising cutting the cooled composite article of manufacture to produce composite articles of manufacture of desired lengths.

32. (Original) A process for forming a composite article of manufacture according to claim 19 wherein the fiber is an agricultural by-product.

33. (Original) A process for forming a composite article of manufacture according to claim 32 wherein the agricultural by-product is selected from the group consisting of corn stalks, wheat straw, bambu reeds, and sisal.

34. (Previously canceled) A process for forming a composite article of manufacture according to claim 19 wherein the fiber is wood or crumb rubber.
35. (Original) A process for forming a composite article of manufacture according to claim 19 wherein the thermal plastic is selected from the group consisting of polyethylene and polypropylene and a combination thereof.
36. (Original) A process for forming a composite article of manufacture according to claim 26 wherein the additive added to the composite article of manufacture is maleic anhydride.
37. (Original) A process for forming a composite article of manufacture according to claim 26 wherein the composite article of manufacture produced is a building board or building panel.
38. (Previously amended) A process for forming a composite article of manufacture according to claim 36 wherein between about .5% to about 3% of maleic anhydride is added to the hot thermal plastic.
39. (Previously withdrawn) An article of manufacture according to claim 1 wherein the article of manufacture has a flex modulus of about 1.2 to about 1.3 Million.
40. (Previously withdrawn) An article of manufacture according to claim 8 wherein the fiber material is about 57% by weight and the thermal plastic is about 38% by weight.
41. (Previously withdrawn) An article of manufacture according to claim 1 wherein the article of manufacture comprises about 35% by weight of fiberglass, 25% by weight of wood fiber, and about 40% by weight of thermal plastic material.

42. (Previously withdrawn) An article of manufacture according to claim 1 wherein the fiber material is a mixture of fiberglass and wood.
43. (Previously withdrawn) An article of manufacture according to claim 42 wherein the fiber material is fiberglass.
44. (Previously withdrawn) An article of manufacture according to claim 41 wherein the article of manufacture comprises about 60% by weight of fiberglass and 40% by weight of thermal plastic material
45. (Previously canceled) A process for forming a composite article of manufacture according to claim 19 wherein the fibers comprise a mixture of fiberglass and wood.
46. (Previously canceled) A process for forming a composite article of manufacture according to claim 45 wherein the fiber is fiberglass.
47. (Previously withdrawn) An article of manufacture according to claim 5 wherein the fiberglass is in the form of chop and is about $\frac{1}{4}$ inch to about 1 inch in length.
48. (Canceled) A process for forming a composite article of manufacture comprising:
- a) adding fiberglass chop about $\frac{1}{4}$ inch to about 1 inch in length to a mixing container;
 - b) heating the fibers in step (a) to remove moisture;
 - c) contacting the hot thermal plastic additive mixture with the fibers of step (b) to produce a fiber/thermal plastic composite; and
 - d) contacting the fiber/thermal plastic mixture of step (c) with a die to provide shape to the fiber/thermal plastic composite and to produce the composite article of

manufacture, wherein the fiber/thermal plastic composite comprises about 35% fiberglass, about 25% wood, and about 40% plastic.

49. (Canceled) A process for forming a composite article of manufacture according to claim 48 wherein the fibers are added to the mixing container by a gravimetric feeder so as to provide a consistent feed of fiber to the mixing container.

50. (Canceled) A process for forming a composite article of manufacture according to claim 48 wherein the mixing container is a twin screw extruder.

51. (Canceled) A process for forming a composite article of manufacture according to claim 48 further comprising subjecting the fibers to a vacuum to remove additional water from the fibers.

52. (Canceled) A process for forming a composite article of manufacture according to claim 48 wherein the fibers are heated to a constant temperature of about 400 degrees F to about 450 degrees F.

53. (Canceled) A process for forming a composite article of manufacture according to claim 48 further comprising adding at least one additive selected from the group consisting of dyes, ultraviolet light protecting additives, flame retardants, fungus retardants additives, heat resistance antioxidants, and insect retarding additives to the hot thermal plastic step (b) to produce a hot thermal plastic additive mixture that is contacted with the fibers of step (c).

54. (Canceled) A process for forming a composite article of manufacture according to claim 48 wherein the hot thermal plastic is contacted with the fibers by injecting the hot thermal plastic into the mixing container containing the fibers.

55. (Canceled) A process for forming a composite article of manufacture according to claim 48 further comprising cooling the composite article of manufacture once the composite article of manufacture is shaped.

56. (Canceled) A process for forming a composite article of manufacture according to claim 48 wherein the composite article of manufacture is first cooled to about 200 degrees F and then subsequently cooled to room temperature.

57. (Canceled) A process for forming a composite article of manufacture according to claim 48 wherein the composite article of manufacture is cooled using a water spray system that sprays water on each surface of the composite article of manufacture.

58. (Canceled) A process for forming a composite article of manufacture according to claim 48 further comprising cutting the cooled composite article of manufacture to produce composite articles of manufacture of desired lengths.

59. (Previously withdrawn) An article of manufacture according to claim 1 wherein the fiber used is fiberglass and the article of manufacture has a flex modulus up to about 2.0 Million.

60. (Previously withdrawn) An article of manufacture according to claim 1 comprising about 25% to about 60% by weight of fiberglass, 25% to about 40% wood, and about 40% to about 70% weight of plastic.